

**Final Draft
Health and Safety Plan
Dallas Housing Authority
Site Investigation
Dallas, Texas**

February 1992


**Prepared by:
Camp Dresser & McKee Inc.
Dallas, Texas**

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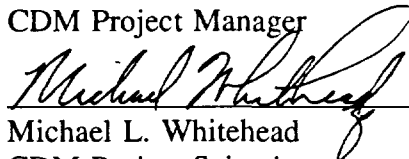
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Health and Safety Plan
for the
Dallas Housing Authority
Remedial Investigation
Dallas, Texas

February 1992

Approved by: 
Dan L. Mueller, P.E.
CDM Project Manager

Date: 2/92

Approved by: 
Michael L. Whitehead
CDM Project Scientist

Date: 2/92

Approved by: _____
Patricia Dentler
CDM Health and Safety Manager

Date: _____

HEALTH AND SAFETY PLAN FORM

CDM Health and Safety Program

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PROJECT DOCUMENT #: 2509-110PROJECT NAME Dallas Housing Authority (DHA)WORK ASSIGNMENT # 2509-110-ST-ADLREGION SOCJOBSITE ADDRESS Corner of Singleton Blvd. and
Westmoreland Rd.CLIENT Dallas Housing AuthorityPROJECT # 2509-110-ST-ADLCONTACT Alphonso Jackson / Lori HendersonCONTACT PHONE # 214-951-8302AMENDMENT # 1☐ AMENDMENT TO EXISTING APPROVED HSP☐ DATE EXISTING APPROVED HSP _____**OBJECTIVES: Summarize below**

The primary objective of the field sampling program is to determine the nature and the extent of the contamination at the DHA site resulting from lead smelting and metal fabricating activities from the RSR smelter. This task will be achieved by collecting various soil, groundwater, tap water, and indoor dust samples at the DHA site for analysis by XRF or an analytical laboratory.

TYPE: Check as many as applicable

Active	<input checked="" type="checkbox"/>	Landfill	<input type="checkbox"/>	Unknown	<input type="checkbox"/>
Inactive	<input type="checkbox"/>	Uncontrolled	<input checked="" type="checkbox"/>	Other specify	
Secure	<input type="checkbox"/>	Industrial	<input type="checkbox"/>		
Unsecure	<input checked="" type="checkbox"/>	Recovery	<input type="checkbox"/>		
Enclosed space	<input type="checkbox"/>	Well Field	<input type="checkbox"/>		

DESCRIPTION AND FEATURES: Summarize below. Include principal operations and unusual features (containers, buildings, dykes, power line, terrain, etc.)

The West Dallas Development is a 460 acre area comprised of 3500 housing units along with several maintenance facilities, schools, and day care facilities. The DHA site is bounded by Westmoreland Road on the west, Hampton Road to the east, Canada Drive and the west fork of the Trinity River on the north, and Singleton Boulevard to the south. The RSR lead smelting facility (source of contamination) is located approximately 600 feet south of Singleton Boulevard (see enclosed map).

SURROUNDING POPULATION: ☒ Residential ☒ Industrial ☐ Rural ☒ Urban OTHER:

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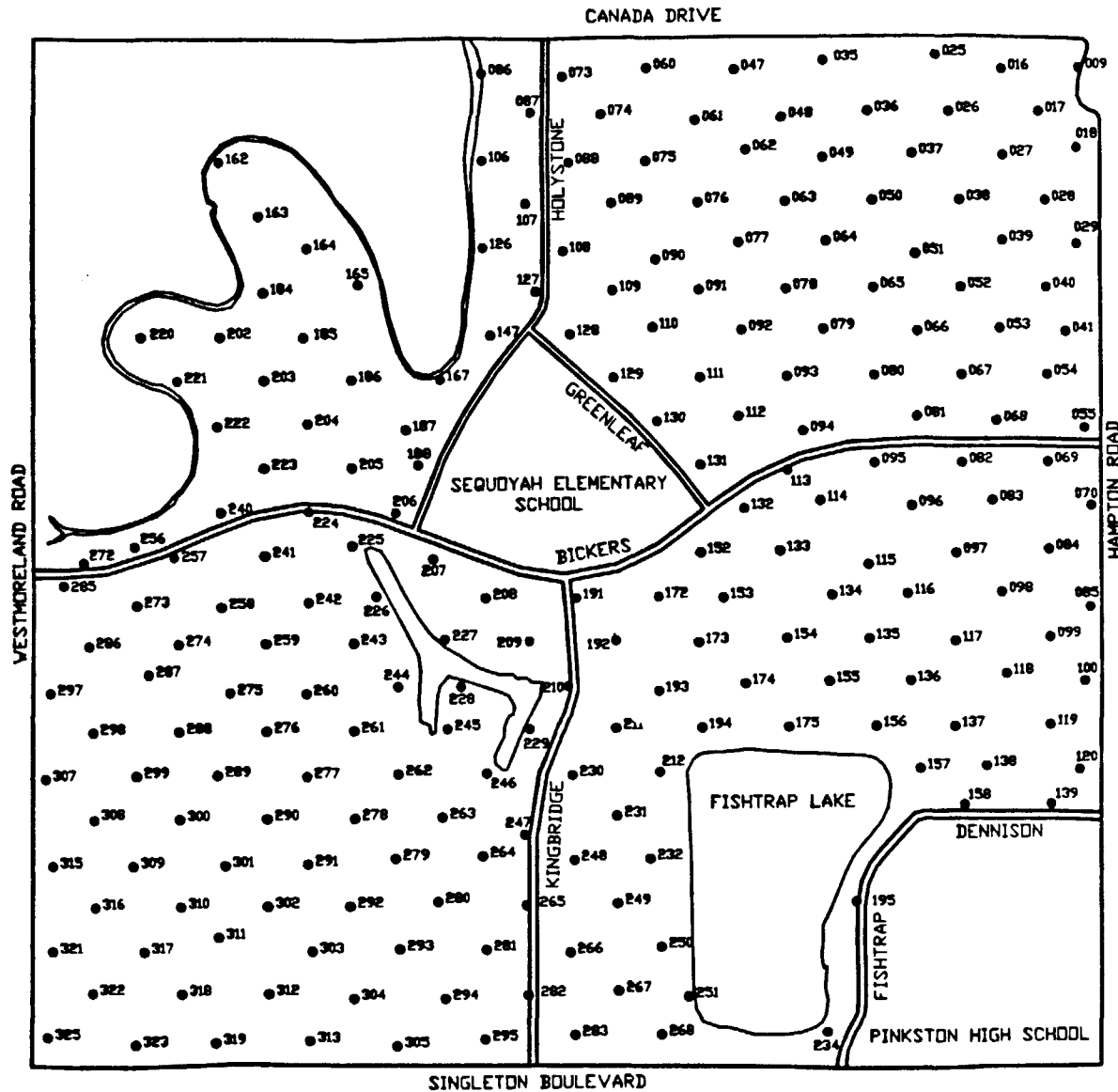
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SITE MAP



LEGEND

● 001 PRIMARY GRID SAMPLING POINT

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PROJECT DOCUMENT #: 2509-110

HISTORY: Summarize below. In addition to history, include complaints from public, previous agency actions, known exposures or injuries, etc.

The DHA site was relatively undeveloped prior to 1942. Between the years of 1942 and 1951, private residences increased and several industrial facilities were developed along Singleton Boulevard. The DHA site itself is utilized for public housing. No manufacturing or industrial activities occur on this property. Concerns regarding human and environmental exposures to lead began in the early 1970s as a result of smelter emissions from nearby RSR smelter. The State of Texas and the City of Dallas instituted a cleanup program for portions of the DHA site and areas adjacent to the RSR facility which was completed by 1985. The Texas Water Commission, however, sampled the RSR facility in 1991 and identified lead concentrations in the soil as high as 64,000 mg/kg as well as elevated cadmium (100 mg/kg) and arsenic (2,000 mg/kg) levels. The highest observed level of soil lead at the DHA site was 2,500 mg/kg, while cadmium and arsenic were 6 mg/kg and 62 mg/kg, respectively.

WASTE TYPES: (X) Liquid (X) Solid () Sludge () Gas () Unknown (X) Other specify: Dust

WASTE CHARACTERISTICS: Check as many as applicable.

() Corrosive () Flammable () Radioactive
(X) Toxic () Volatile () Reactive
() Inert () Unknown (X) Other specify:
Metals

WORK ZONES: Describe the exclusion, contamination reduction, and support zones in terms familiar to on-site personnel

The exclusion zone will be a ten foot square area around each sample location. Only personel (OSHA hazardous waste certified) will be allowed in this area during excavation.

HAZARDS OF CONCERN:

() Heat Stress attach guidelines () Noise
() Cold Stress attach guidelines (X) Inorganic Chemicals
() Explosive/Flammable () Organic Chemicals
() Oxygen Deficient (X) Other specify
() Radiological Dust and potentially
() Biological asbestos

PRINCIPAL DISPOSAL METHODS AND PRACTICES: Summarize below.

Smelter emissions were deposited on the surface soil within the study area. Dumping of slag and other smelter materials may have occurred. An old landfill may be present in the Kingbridge Park Area.

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HAZARDOUS MATERIAL SUMMARY: *Circle waste type and estimate amounts by category*

CHEMICALS: Amount/Units:	SOLIDS: Amount/Units:	SLUDGES: Amount/Units:	SOLVENTS: Amount/Units:	OILS: Amount/Units:	OTHER: Amount/Units:
Acids	Flyash	Paint Pigments	Halogenated	Oily Solvents	Laboratory Wastes Pharmaceutical
Pickling Liquors	Asbestos	Metals Sludges	Non- Halogenated Solvents	Other <i>specify:</i>	Hospital
Caustics	Milling/Mine Tailings	POTW Sludge	Other <i>specify:</i>	None	Radiological
Pesticides	Ferrous Smelter	Aluminum	None		Municipal
Dyes/Inks	Non-Ferrous Smelter	Other <i>specify:</i>			Other <i>specify:</i>
Cyanides	Other <i>specify:</i>	None			
Phenols	Metals (soil)				
Halogens					
PCBs					
Metals					
Other <i>specify:</i>					

OVERALL HAZARD EVALUATION: () High () Medium (X) Low () Unknown *(Where tasks have different hazards, evaluate each.
Attach additional sheets if necessary)***JUSTIFICATION:** The metals of concern and the asbestos may be an inhalation hazard; therefore, the dust will be controlled.**FIRE/EXPLOSION POTENTIAL:** () High () Medium (X) Low () Unknown**BACKGROUND REVIEW:** (X) COMPLETE () INCOMPLETE

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KNOWN CONTAMINANTS	HIGHEST OBSERVED CONCENTRATION (specify units and media)	PEL/TLV ppm or mg/m ³ (specify)	IDLH ppm or mg/m ³ (specify)		SYMPTOMS/EFFECTS OF ACUTE EXPOSURE	Photo ionization Potential
Arsenic (soil)	* 62 mg/kg S	0.01 mg/m ³	Carc. 100 mg/m ³	NA	Irritation, nasal, ulcers, CI disturb	NA
Asbestos	U	0.2 f/c ³	Carc.	Dust	Dyspnea, restricted pulmonary function, finger clubbing	Dust
Cadmium (soil)	* 6 mg/kg S	0.2 mg/m ³	Carc. 50 mg/m ³	None	Pulmonary edema, tight chest, chills, headache	NA
Lead (soil)	* 2,500 mg/kg S	0.05 mg/m ³	700 mg/m ³	NA	Lassitude, insomnia, weakness, abdominal pain	NA
Zinc (soil)	NA	5.0 mg/m ³	NE	NA	Sweet metal taste, dry throat, cough, chills, fever	NA
* DHA SITE ONLY						
NA = Not Available NE = None Established U = Unknown						
S = Soil A = Air	SW = Surface Water GW = Groundwater	T = Tailings SL = Sludge	F = Flyash D = Drums	TK = Tanks L = Lagoon		

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FIELD ACTIVITIES COVERED UNDER THIS PLAN**TASK DESCRIPTION/SPECIFIC TECHNIQUE-STANDARD OPERATING
PROCEDURES/SITE LOCATION** *(attach additional sheets as necessary)***LEVEL OF PROTECTION**

	TYPE	Primary	Contingency	SCHEDULE
1 Sampling of surface soils- Excavate to depth of 18" with shovel and sample with hand trowel.	Intrusive Non-Intrusive	A B C <u>D</u> Modified	A B <u>C</u> D Modified	Feb. 1992
2 Sampling of subsurface soils- Drill with hollow stem auger to a depth of 20'.	Intrusive Non-Intrusive	A B C <u>D</u> Modified	A B <u>C</u> D Modified	Feb. 1992
3 Sampling of groundwater- Monitor wells instituted to a depth of 20'.	Intrusive Non-Intrusive	A B C <u>D</u> Modified	A B <u>C</u> D Modified	Feb. 1992
4 Sampling of tap water- Faucets in apartment units.	Intrusive Non-Intrusive	A B C <u>D</u> Modified	A B <u>C</u> D Modified	Feb. 1992
5 Sampling of indoor dust- Floors of apartment units.	Intrusive Non-Intrusive	A B C <u>D</u> Modified	A B <u>C</u> D Modified	Feb. 1992

PERSONNEL* AND RESPONSIBILITIES (Include subcontractors)

NAME	FIRM/REGION	CDM HEALTH CLEARANCE	RESPONSIBILITIES	ON SITE ?
Dan Mueller <i>Dan Mueller</i>	CDM/Dallas	DT	Project Manager	1-2-3
Michael Whitehead <i>Michael Whitehead</i>	CDM/Dallas	CS	Sample Team Leader	1-2-3-4-5
Tom Bordelais	CDM/West	DT	Sampler	1-2-3-4-5
Jeff Smith	CDM/Dallas	CS	Sampler	1-2-3-4-5
Kent Whiting	CDM/West	CS	Sample Team Leader	1-2
Teddy Marcum	CDM/West	DT	Sampler	1-2
Reagan Rorschach <i>Reagan Rorschach</i>	CDM/Houston	CS	Sampler	1-2
George Voiland <i>George Voiland</i>	CDM/New Orleans	DT	Sampler	1-2

*Personnel listed on this page have completed the training, medical, and respiratory program requirements of the CDM Health and Safety Assurance Manual (HSAM) and OSHA standard 29 CFR 1910.120.

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PROTECTIVE EQUIPMENT: Specify by task. Indicate type and/or material, as necessary. Use copies of this sheet if needed.

BLOCK A

TASKS: LEVEL: 1-2-3-4-5 A-B-C-D-Modified Primary Contingency	Respiratory: <input checked="" type="checkbox"/> Not needed () SCBA, Airline: _____ () APR: _____ () Cartridge: _____ () Escape Mask: _____ <input checked="" type="checkbox"/> Other: Dust Mask (Optional)	Prot. Clothing <input checked="" type="checkbox"/> Not needed () Encapsulated Suit: _____ () Splash Suit: _____ () Apron: _____ <input checked="" type="checkbox"/> Tyvek Coverall Optional () Saranex Coverall () Coverall: _____ () Other: _____
	Head and Eye: () Not needed <input checked="" type="checkbox"/> Safety Glasses: _____ () Face Shield: _____ () Goggles: _____ () Hard Hat: _____ () Other: _____	Gloves: () Not Needed <input checked="" type="checkbox"/> Undergloves: Latex () Gloves: _____ () Overgloves: _____
	Boots: () Not Needed Boots: Steel Toe Overboots: _____	Other: Specify below

BLOCK B

TASKS: LEVEL: 1-2-3-4-5 A-B-C-D-Modified Primary Contingency	Respiratory: () Not needed () SCBA, Airline: _____ () APR: _____ () Cartridge: _____ () Escape Mask: _____ <input checked="" type="checkbox"/> Other: Dust mask or Half face respirator	Prot. Clothing () Not needed () Encapsulated Suit: _____ () Splash Suit: _____ () Apron: _____ <input checked="" type="checkbox"/> Tyvek Coverall () Saranex Coverall () Coverall: _____ () Other: _____
	Head and Eye: () Not needed () Safety Glasses: _____ () Face Shield: _____ <input checked="" type="checkbox"/> Goggles: _____ () Hard Hat: _____ () Other: _____	Gloves: () Not Needed <input checked="" type="checkbox"/> Undergloves: Latex () Gloves: _____ <input checked="" type="checkbox"/> Overgloves: Optional
	Boots: () Not Needed Boots: Steel Toe Overboots: _____	Other: Specify below

BLOCK C

TASKS: LEVEL: 1-2-3-4 A-B-C-D-Modified Primary Contingency	Respiratory: () Not needed () SCBA, Airline: _____ () APR: _____ () Cartridge: _____ () Escape Mask: _____ () Other: _____	Prot. Clothing () Not needed () Encapsulated Suit: _____ () Splash Suit: _____ () Apron: _____ () Tyvek Coverall () Saranex Coverall () Coverall: _____ () Other: _____
	Head and Eye: () Not needed () Safety Glasses: _____ () Face Shield: _____ () Goggles: _____ () Hard Hat: _____ () Other: _____	Gloves: () Not Needed () Undergloves: _____ () Gloves: _____ () Overgloves: _____
	Boots: () Not Needed Boots: _____ Overboots: _____	Other: Specify below

BLOCK D

TASKS: LEVEL: 1-2-3-4 A-B-C-D-Modified Primary Contingency	Respiratory: () Not needed () SCBA, Airline: _____ () APR: _____ () Cartridge: _____ () Escape Mask: _____ () Other: _____	Prot. Clothing () Not needed () Encapsulated Suit: _____ () Splash Suit: _____ () Apron: _____ () Tyvek Coverall () Saranex Coverall () Coverall: _____ () Other: _____
	Head and Eye: () Not needed () Safety Glasses: _____ () Face Shield: _____ () Goggles: _____ () Hard Hat: _____ () Other: _____	Gloves: () Not Needed () Undergloves: _____ () Gloves: _____ () Overgloves: _____
	Boots: () Not Needed Boots: _____ Overboots: _____	Other: Specify below

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MONITORING EQUIPMENT: Specify by task. Indicate type as necessary. Attach additional sheets as necessary.

INSTRUMENT	TASK	ACTION GUIDELINES	COMMENTS (includes schedules of use)
Combustible Gas Indicator		0-10%LEL No explosion hazard. 10-25%LEL Potential explosion hazard; notify SHSC. >25%LEL Explosion hazard; interrupt task/evacuate 21.0%O ₂ Oxygen normal. <21.0%O ₂ Oxygen Deficient; notify SHSC. <19.5%O ₂ Interrupt task/evacuate	(X) Not Needed
Radiation Survey Meter		3 x Background: Notify SHSC. >2mR/hr: Interrupt task/evacuate	Note: Annual exposure not to exceed 100mrem/yr. or 50 urem/hr average (X) Not Needed
Photoionization Detector () 11.7ev () 10.2 ev () 9.8 ev (X) 10.0 ev Type Thermo OVM	1-2-3	Specify: 0 to 1 ppm: Level D 1 to 5 ppm: Upgrade to level C. Test with detector tube. If benzene less than 1 ppm, continue work. Level C > 5 ppm: Leave area	() Not Needed Used PID for all exterior samples taken
Flame Ionization Detector Type _____		Specify:	(X) Not Needed
Detector Tubes/ Monitox Type Benzene Type _____	1-2-3	Specify: 0 to 1 ppm: Level D 1 to 5 ppm: Level C > 5 ppm: Leave area	() Not Needed Utilized if PID readings exceed 1 ppm. Use benzene detector tube.
Respirable Dust Monitor Type Miniram Type _____	1-2	Specify: Miniram reads < 5 ppm, then Level D Miniram reads > 5 ppm, then Level C	() Not Needed If team members experience eye or throat irritation, they will use respirator specified in Class C PPE.
Other Specify:	1-2-3-4-5	Specify: This action level is subject to change based on analytical results.	

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DECONTAMINATION PROCEDURES

ATTACH SITE MAP INDICATING EXCLUSION, DECONTAMINATION, AND SUPPORT ZONES

Personnel Decontamination

*Summarize below and/or attach diagram; discuss
use of work zones.*

Task 1-2-3-4-5

Workers will remove protective
clothing in this order:

- 1) Boots
- 2) Tyvek (or coverall)
- 3) Respirator (if worn)
- 4) Latex gloves
- 5) Wash face and hands.

Workers will remove protective
clothing before eating or drinking.
Workers must also shower as
soon as possible after work.

() Not needed

Sampling Equipment Decontamination

*Summarize below and/or attach diagram; discuss
use of work zones.*

Task 1-2-3-4-5

Rinse sampling equipment between collection
of samples with Alconox/tap water solution
followed by rinse with DI water. Air dry on
plastic or with paper towels.

() Not needed

Heavy Equipment Decontamination

*Summarize below and/or attach diagram; discuss
use of work zones.*

Task 2 & 3

Steam clean all downhole drilling and sampling
equipment on a lined decontamination pad.
Decontamination pad specs will be supplied to
drilling subcontractor prior to site entry. Addi-
tionally, all sampling equipment (ie. split spoon)
will be decontaminated with alconox/water
solution followed by DI water rinse.

() Not needed

Containment and Disposal Method

Gloves, disposable protective clothing, and
solid waste material associated with sample
decontamination will be placed in lined 55
gallon drums. The drums will be stored on-
site until sample analysis of groundwater and
soil samples are completed. At that time a
determination of the hazards of the contain-
erized material will be made to ensure
proper disposal.

Containment and Disposal Method

Water and sludge generation from sampling
equipment decontamination will be container-
ized into lined 55 gallon drums and stored on-
site until sample analyses of the groundwater
and soil samples are completed. At that time
a determination of the status of the container-
ized material will be made to ensure proper
disposal.

Containment and Disposal Method

Decon pad wastewater and sludge will be
containerized into lined 55 gallon drums and
stored on-site until sample analyses of the
groundwater and soil samples are com-
pleted. At that time a determination of the
status of the containerized material will be
made to ensure proper disposal.

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EMERGENCY CONTACTS

Water Supply	Dallas Water Utilities Dept.	214-774-5005
Telephone	Southwestern Bell	Dial 611
Radio		
Other (specify)	TU Electric	214-653-1311
USEPA Environmental Response Team		201-321-6660
US Coast Guard Environmental Response Team		800-424-8802
Association of American Railroads Response Team		202-293-4048
CHEMTREC		800-424-9300

CONTINGENCY PLANS Summarize below

In an event of an emergency, exit site and notify HSM as well as appropriate emergency agency. Also if the Miniram Dust Monitor exceeds 5 mg/m³, Upgrade level of protection to Class C.

HEALTH AND SAFETY PLAN APPROVALS

Prepared by _____

Date _____

SHSC Signature _____

Date _____

HSM Signature _____

Date 3/3/93

EMERGENCY CONTACTS

	NAME	PHONE
Health and Safety Manager	Pat Dentler	303-298-1311
Project Manager	Dan Mueller	214-987-1900
Site Health and Safety Coordinator	Michael Whitehead	214-987-1900

EPA Contract**Other (specify)**

State Environmental Agency	TWC	512-463-7910
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State Spill Contractor	TWC	214-298-6171
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Fire Department**Police Department****State Police**

Health Department	214-920-7900
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Poison Control Center	214-590-5000
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911**MEDICAL EMERGENCY****Phone:**

Hospital Name:	Parkland Memorial	214-590-8000
	or St. Paul's	214-879-1000

Hospital Address:	5201 Harry Hines Blvd., Dallas, TX 75235
	5909 Harry Hines Blvd., Dallas, TX 75235

Name of Contact at Hospital:	Phone:
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Name of 24-Hour Ambulance:**Route to Hospital:**

The hospital map is attached after this page.

911

Distance to hospital Depends on sampling location (approx. 1 mile)

Attach map with route to hospital

